



July 7, 2010

Mr. Tony Martig, Chief – Toxics Section
United States Environmental Protection Agency Region 5
77 West Jackson Boulevard
Mail Code: LC-8J
Chicago, IL 60604-3507

Re: Revised Tank 51 Restoration Work Plan Application
ESI Environmental, Inc. – Indianapolis, Indiana

Dear Mr. Martig:

As previously reported, an incident at the ESI Environmental, Inc., (ESI) facility in Indianapolis, Indiana, resulted in the accumulation of polychlorinated biphenyl (PCB)-containing oils in tanks and piping at the facility. WSP Environment & Energy has been working to remove PCB-containing oils and decontaminate piping and frac tanks. The majority of this work has been successfully completed; however, as discussed below, the decontamination of one of the larger tanks, Tank 51, and the associated piping remains to be completed. The effort and expense incurred to date has been extensive, involving over 110 days of onsite activities and considerable other planning activities. WSP has prepared this application for a work plan to restore Tank 51 in a cost effective and pragmatic manner that is consistent with applicable laws and regulations. This letter also addresses issues relating to the West Million and East Million tanks located at ESI's facility.

Incident Background

The ESI facility operates a commercial used oil processing facility in Indianapolis, Indiana. The facility consists of numerous tanks, sumps, vessels, and pipes used to process used oil and oily water. The oil process diagram is shown on Figure 1 and the plant layout is shown on Figure 2. WSP understands that the facility operates under an analysis plan developed pursuant to 329 IAC 13-7-6 or 40 Code of Federal Regulations (CFR) 279.55, and that before July 18, 2007, ESI relied on generator and transporter knowledge and certification that incoming loads do not contain PCBs. Additionally, ESI regularly samples and analyzes its product oil to confirm no PCBs and samples and analyzes each incoming load for purposes of the "rebuttable presumption" under 40 CFR 279.53 and retains the samples.

On July 18, 2007, ESI was informed by a customer that it had discovered approximately 28 milligrams per kilogram (mg/kg) of PCBs in a used oil shipment from the ESI facility. The customer returned the shipment to ESI, and the returned shipment of the oil was placed in a segregated holding tank. Upon notification, ESI took actions to detect, manage, and contain the material by ceasing to process oil and contacting its customers to recall the oil that may have had PCBs. ESI collected samples for PCB analyses from each of the product storage frac tanks and other process tanks. ESI also systematically analyzed the archived samples of the incoming loads until they identified the loads that contained PCBs. ESI discovered that

detectable PCBs were present in four loads of oily water from one generator/ transporter received on July 6, 2007 (two loads), July 10 (one load), and July 11 (one load).

As indicated in ESI's letter to you, dated August 9, 2007, decontamination of ESI's equipment began immediately after receipt of the contaminated used oil, followed by more intensive decontamination with kerosene beginning on August 1, 2007, pursuant to the self-implementation regulations set forth in 40 CFR 761.79. As described in follow-up correspondence to EPA, ESI completed three flushes using approximately 2,000 gallons of kerosene per flush. The recovered kerosene was transferred to Tank 51 (also referred to as "L" on Figure 1). Tank 51 is a 40-foot high tank with a diameter of 60 feet.

As described below, the materials conveyed to Tank 51 during ESI's response to the PCB contamination were limited to pumpable materials, which consisted of the liquids and suspended solids that could be pumped through existing and temporary lines. This type of material typically exists in used oil at recycling facilities. The decontamination process that took place at ESI's facility in response to the the PCB contamination is summarized in great detail in an August 23, 2007 email to the EPA and IDEM. According to information in this email and additional information obtained by ESI from current and former employees who were intimately involved in ESI's decontamination activities from July 18, 2007 through August 14, 2007, the materials that were pumped to Tank 51 included all pumpable materials contained in the tanks and equipment, identified in the August 23, 2007 email including oil, decontamination solvent, and other pumpable materials, such as suspended solids. The materials that could not be pumped to Tank 51 were placed in frac tanks 529A and 536A. Recovered centrifuge solids (a.k.a. point "H" on Figure 1) were stored in a 3,000-gallon tank (referred to in this plan as the "centrifuge solids tank"). The solids from frac tanks 529A, 536A, and the centrifuge solids tank were disposed of offsite in accordance with applicable TSCA regulations. In addition, WSP's activities related to Tank 51, conducted from July 2008 to October 2009, were limited to removing materials out of the tank, therefore, no materials from other areas of the facility were pumped or transferred to Tank 51 during WSP's decontamination activities. **In summary, at no point during ESI's or WSP's decontamination activities were solids remaining in any tanks or other vessels physically removed by scraping, shoveling, or other non-pumping activities and placed in Tank 51.**

As discussed in previous correspondence to the EPA from ESI, PCB-containing material was isolated in frac tanks 1, 2, 3, 4, 5, 9, 529A, 536A, Tank 43, Tank 44, Tank 51, and the centrifuge solids tank.

In addition, samples of oil from frac tanks 43 and 44 that were collected by ESI on July 6, 2007, contained 13.28 ppm and 6.76 ppm of PCBs, respectively (Table 1). Subsequent to this sampling, these tanks were flushed and the pumpable liquids removed by ESI; however, ESI did not remove the sludges from the bottom of these tanks. After the liquids were removed, WSP collected a sludge sample from each of these tanks on March 12, 2008; neither sludge sample contained detectable PCBs at reporting limits of 2.0 and 20 ppm.¹ WSP does not believe any additional decontamination of these tanks is warranted because the sludge samples did not exhibit detectable PCBs.

Starting in July 2008, WSP began the removal and transport of oil containing PCBs greater than 50 parts per million (ppm) to the Veolia Environmental Services (Veolia) facility in Port Arthur, Texas, and oil containing PCBs less than 50 ppm to the LaFarge North America/Systech Environmental Corporation (Systech) facility in Paulding, Ohio. The Systech facility was

¹ The sludge samples were sent to a second laboratory after the first laboratory was unable to achieve an acceptable detection limit. The first laboratory had a PCB reporting limit of 20 ppm, while the second had a reporting limit of 2.0 ppm.

approved by the EPA to receive oil containing less than 50 ppm PCBs from the ESI facility in a letter, dated April 25, 2008 (Enclosure A). Approximately 41,000 gallons of oil containing PCBs greater than 50 ppm from frac tanks 1, 2, and 9 were sent to Veolia for thermal destruction, and approximately 69,000 gallons of oil containing PCBs less than 50 ppm from frac tanks 3, 4, 5, 529A, and 536A were shipped to Systech for thermal destruction. The removal of oil from frac tanks 1, 2, 3, 4, 5, 9, 529A, and 536A has been completed.

The cleaning of frac tanks has also been completed. The frac tanks were cleaned and then sampled for PCBs in accordance with 40 CFR 761.300 and 40 CFR 761.272. The analytical results did not detect PCBs, and the rented frac tanks (1, 2, 3, 4, 5, 529A, and 536A) were returned to the tank rental company. Frac tank 9, which is owned by ESI, was returned to service at the facility. No non-pumpable materials generated during the removal and disposal of oil or during the cleaning of the frac tanks were pumped or transferred to Tank 51.

The centrifuge solids tank was also cleaned. Solids were removed, placed in vacuum boxes and shipped to Veolia for disposal. The centrifuge solids tank was then cleaned and sampled in accordance with 40 CFR 761.300 and 40 CFR 761.272. The analytical results did not detect any PCBs. This tank, which was owned by ESI, was also returned to service.

Liquids used to clean frac tanks 1, 2, 9 and the centrifuge solids tank were shipped in bulk or drummed and sent to Veolia in Port Arthur, Texas, or Clean Harbors in Deer Park, Texas for disposal. Liquids used to clean frac tanks 3, 4, 5, 529A, and 536A were shipped in bulk to Systech for disposal.

The West Million Tank

The West Million Tank (referred to as "C" on Figure 1) was impacted by PCBs by the incoming loads received during the period that the facility was operating from July 6 through 11, 2007. The decontamination of the West Million Tank and the likely effect of the water barrier between the oil and solids layers in the West Million Tank were described in ESI's previous correspondence to EPA. Prior to receiving notice of the contaminated loads, ESI continued to operate its facility and ultimately processed approximately 200,000 gallons per day of PCB-free oil through its facility between receipt of the contaminated oil and receipt of notice of the contamination on July 18, 2007. The oil in ESI's processes is an ideal solvent for PCBs because PCBs are highly soluble in that oil. Running oil through the ESI system, therefore, effectively and efficiently removed residual PCBs from the system. The oil acted as a solvent during these 7 days of operation and effectively resulted in flushing the system more than three times as required by the self-implementing decontamination procedures. Thus, sufficient volume passed through the West Million Tank to satisfy the requirements of the self-implementing standard (40 CFR 761.61 (a)). As described above, ESI decontaminated the rest of the process and the overall decontamination steps taken by ESI were approved by the EPA in a September 6, 2007 email from you to Tom Gawlik of ESI. In the email, you agreed that "flushing/decontamination of the process tanks and equipment conducted from July 18 - August 14, 2007 and the supporting PCB test results are acceptable." A copy of the September 6, 2007 email has been attached to this Plan. Therefore, it appears, based upon the above and the attached, that the EPA does not require any further decontamination activities for the West Million Tank. Worth noting is that no PCBs have been detected in the product oil processed through the West Million Tank since ESI completed the self-implementing decontamination procedures described in ESI's August 2007 communications to EPA. In addition, two sludge samples collected from the West Million Tank by ESI on August 8, 2007, one in the front of the process and one at the rear, did not contain detectable PCBs. **In light of the above and the EPA's prior authorization for ESI to utilize and process used-oil through the West Million**

Tank, we ask that you please confirm our understanding that no further decontamination procedures need to be taken with respect to the West Million Tank.

The East Million Tank

The East Million Tank is adjacent to the West Million Tank; the two tanks are reportedly separated by a weir. According to ESI, the East Million Tank receives liquids from the West Million Tank during storm events of sufficient intensity – water collects in the sump on the south side of the West Million Tank and backs up into the West Million, causing liquid to overtop the weir and enter the East Million Tank. Based on discussions with ESI personnel during the March 2008 sampling event, there were no storm events of sufficient intensity during the period of operation after the loads containing PCBs were received and the facility was shut down for decontamination (July 6, 2007 to July 18, 2007).

The East Million Tank was sampled by WSP on March 18, 2008. Two samples were collected: one oil sample from the oil layer and one sludge sample from 1 to 2 feet below the top of the sludge. As presented in Table 2, neither sample contained detectable PCBs at reporting limits of 2.0 and 20 ppm.² **Based on these sampling results and the fact that there is no evidence that the content of the East Million Tank came in contact with the PCB-impacted oil, we ask that you please confirm our understanding that no action needs to be taken with respect to the East Million Tank.**

Tank 51

Starting in October 2008, oil containing PCBs less than 50 ppm contained in Tank 51 was transported to Systech for thermal destruction. The process involved mixing the tank to ensure that the loads did not contain too high a water content, pumping the oil into a secondary tank used for mixing, and then loading a tanker from the secondary tank. For a short period of time, the mixing process involved pumping material from the “zero” or bottom valve up to the oil layer in the Tank.

Systech was limited in the number of loads of this oil it could receive each day (3 loads maximum per day depending on the facility operations). Approximately 660,000 gallons of oil from Tank 51 was transported to Systech between October and December 2008; the transportation of oil was shut down for winter in December 2008. Oil removal from Tank 51 and disposal at Systech was completed in August 2009; no readily pumpable material remains in Tank 51. Tank 51 currently contains approximately 250,000 to 275,000 gallons of sludge/solids.

Table 1 presents the results of PCB analysis conducted on two oil samples and one solids sample collected from Tank 51 in March 2008. The results indicate that the oil samples averaged 7.1 ppm PCBs and that the solids sample contained an estimated concentration that was below the reporting limit. In addition, each load received by Systech was tested for PCBs, a total of 113 samples. The average PCB concentration for material loaded from Tank 51 was 5.7 ppm. These data suggest that, while there are PCBs contained in the liquid in Tank 51, the concentrations detected are not excessive and are well below 50 ppm PCBs.

Tank 51 Restoration Application

Objective

As we discussed in our July 15, 2009 meeting, WSP is working to develop a cost effective, pragmatic strategy to restore Tank 51 to enable the tank to be brought back into service. It is believed that Tank 51 contained an unknown fraction of the layer of solids prior to the July 2007

² The oil and sludge samples were sent to a second laboratory after the first laboratory was unable to achieve an acceptable detection limit. The first laboratory had a PCB reporting limit of 20 ppm, while the second had a reporting limit of 2.0 ppm.

PCB contamination incident and, to the extent that it can be demonstrated that the solids remaining in the tank do not contain PCBs above detection levels, the strategy is to allow a portion of the solids to remain in the tank. The strategy describes, in general terms, the activities associated with restoring Tank 51 in accordance with the applicable regulations.

The tank will be decontaminated and verified, as described in the following plan. This section presents the regulatory framework, and then presents a proposed alternative to the self-implementing remediation standards.

Regulatory Framework and Discussion

Each of the following TSCA regulations may be applicable to the restoration of Tank 51:

- 40 CFR 761.79: Decontamination standards and procedures
- 40 CFR 761.61: PCB remediation waste
- 40 CFR 761.120: Subpart G – PCB cleanup

Each of these sections contain provisions for alternative decontamination, as described below:

As stated in 40 CFR 761.79 (h), the decontamination standards and procedures include a process for alternative decontamination methods:

“Alternative decontamination or sampling approval. (1) Any person wishing to decontaminate material as described in paragraph (a) of this section in a manner other than as described in paragraph (b) of this section must apply in writing to the EPA Regional Administrator in the Region where the activity will take place, for decontamination occurring in a single Region; ... Each application must describe the material to be decontaminated and the proposed decontamination method, and must demonstrate that the proposed method is capable of decontaminating the material to the applicable level set out in paragraphs (b)(1) through (b)(4) of this section.”

The alternative decontamination method is presented below.

As stated in 40 CFR 761.61³, the self-implementing remediation standards the EPA developed are for a general, moderately sized site, and the procedures may be less practical for a larger or environmentally diverse site, as stated in the self-implementing standard citation in 40 CFR 761.61(a):

“EPA designed the self-implementing procedure for a general, moderately-sized site where there should be low residual impact from remedial activities. The procedure may be less practical for larger or environmentally diverse sites. For these other sites, the self-implementing procedure still applies, but an EPA Regional Administrator may authorize more practical procedures through paragraph (c) of this section.”

³ Note: page 65 of the January 2009 version of EPA's Question and Answer Manual, located at <http://www.epa.gov/waste/hazard/tsd/pcbs/pubs/qacombed.pdf>, provides an interpretation of PCB remediation waste. Although the “pipeline liquid” referred to is water, it is reasonable to presume that the statement would also apply to PCB-contaminated oil.

3 Q: How must a company treat water that comes into contact with and is therefore contaminated with PCBs?

A: If the liquid is just water, not associated with a pipeline, such as runoff from a contaminated transformer pad, then it should be treated in accordance with the disposal requirements at §761.60 for PCB liquids, or with the decontamination standards for water containing PCBs at §761.79(b)(1). If the water is liquid removed from a pipeline (i.e. pipeline liquids), then it should be treated as PCB remediation waste in accordance with §761.61(a)(5)(iv). A technical correction will be made to §761.30(i)(5)(i). The phrase “in accordance with §761.60(a)” will be replaced with the phrase “in accordance with 761.61(a)(5)(iv)”.

As stated in 40 CFR 761.61 (c)(2):

“EPA will issue a written decision on each application for a risk-based method for PCB remediation wastes. EPA will approve such an application if it finds that the method will not pose an unreasonable risk of injury to health or the environment.”

Additionally, EPA has flexibility in allowing less stringent alternative requirements under 40 CFR 761.120(c) if the responsible party demonstrates one or more of the following:

- cleanup to the prescribed numerical standards is unwarranted because of risk-mitigating factors;
- implementing the policy is impractical at the particular site; or
- implementing the policy is cost-prohibitive, due to the site-specific characteristics.

The self-implementing procedure is impractical for Tank 51 for the following reasons:

- An unknown fraction of the layer of solids and unpumpable material at the bottom of Tank 51 was in place before the PCB-containing materials were introduced into the tank, and an unknown quantity of solids was present in the PCB-containing oil introduced into the tank. Some solids that were in the materials placed in Tank 51 have likely settled due to the passage of time. WSP believes the pre-existing solids did not mix appreciably with the oil layer above because the solids are denser than the oil. Some mixing may have occurred when the contents in Tank 51 were mixed to provide a more consistent product for shipment to Systech.
- Removing all the sludge from Tank 51 could require openings to be made in the tank, which would then require extensive repairs. When pumping solids from the tank, WSP and its contractor lowered the pump, which weighed approximately 120 pounds, onto the top of the sludge layer. The sludge supported the weight of the pump. This assertion is demonstrated by the results of samples WSP collected by pushing a core sampler into the solids layer, which did not detect PCBs above the reporting limit (see Table 1).
- If the solids must be removed, they may need to be managed as a TSCA waste, unless EPA agrees that the solids are not TSCA wastes or grants a variance from TSCA disposal standards for the solids, or if the solids contain no detectable PCBs. The closest facility that can accept TSCA-regulated solids with any amount of free liquids is the Veolia facility in Port Arthur, Texas. (Systech will not accept this material due to the high solids and low BTU content.) Assuming 2,400 gallons of solids per load, this would require approximately 115 loads and 260,000 miles of truck travel.
- Cleaning the tank and collecting wipe samples every 10 square meters would require that workers enter the tank for extended periods of time using confined space entry procedures. Furthermore, the cost to remove the sludge, manage it as a TSCA waste, and fully comply with 40 CFR 761.61 (a) would be prohibitive (as much as \$4 to \$5 million).

Restoration Implementation

For the reasons articulated above, WSP proposes an alternate restoration process that is based on the regulations in 40 CFR 761, as discussed below. We believe this proposed process is protective of human health and the environment, meets the requirements of both 40 CFR 761.61(c) and 40 CFR 761.79(h), and can be implemented in a manner to minimize the risk to workers.

As currently designed, the proposed Tank 51 restoration will consist of the following:

1. **Remove ridges on the top of the unpumpable solids:** The existing manway will be used to access the top of the unpumpable solids. A high pressure sprayer equipped with a camera and lights will be inserted in the existing manway and then will be used to smooth out the high spots to allow oil to flow towards the manway. Contractor personnel will not enter the tank, unless absolutely necessary to smooth out the high spots.
2. **Triple Rinse the interior surfaces of Tank 51:** The exposed surfaces in the tank will be triple rinsed with a petroleum-based solvent, such as diesel fuel, using a nozzle powerful enough to reach the other side of the tank from the existing manway. Contractor personnel will spray from the manway using the remote sprayer. The triple rinse will consist of spraying the tank walls, any components, and the solids surface with the rinse solvent. The rinse volume will be 15,000 gallons, which is less than 10 percent of the tank volume (846,000 gallons). Therefore, each rinse will consist of reuse of the 15,000 gallons 6 times.
3. **Collect and test the rinse material:** The rinse material will be pumped out of Tank 51 using the pumping system used to remove the oil from tank into a mixing frac tank for reuse. After the 15,000 gallons have been used 6 times, a representative sample will be collected for testing. A representative sample will be collected by running the mixers in the mix tank for 30 minutes and then collecting a sample from the mixing liquid through the manway in the middle of the mixing tank at a depth of one-foot below the liquid surface. The sample will be tested for percent solids using American Society for Testing and Materials (ASTM) method D1798; if the solvent-oil mixture is greater than 0.5 percent solids (by weight), then the solid and liquid sample phases will be separated in accordance with 40 CFR 761.269 and tested for PCBs in accordance with 40 CFR 761.272. If the first rinse is greater than 50 ppm PCBs, the rinse material will be disposed of as described below and new rinse material will be used. If the rinse material is less than 50 ppm, it will be reused in the second rinse.
4. **Rinses 2 and 3:** The second rinse will be conducted in a manner similar to the first rinse. After the second rinse is completed, the rinse material will be collected and tested as described in step 3. If the results from testing the second rinse indicate a PCB concentration greater than 2 ppm, the rinse material will be disposed of as described below and new rinse material will be used. If the results from testing the second rinse indicate a PCB concentration less than 2 ppm, it will be reused in the third rinse. The third rinse will be conducted in a manner similar to the other two rinses. After the third rinse is completed, the rinse material will be collected and tested as described in step 3. If the results from testing the third rinse indicate a PCB concentration less than 2 ppm, the triple rinse will be considered complete. If the results from testing the third rinse indicate a PCB concentration greater than 2 ppm, the rinse material will be disposed of as described below, and another rinse will be completed. Additional rinses and testing will be completed until the rinse material after a completed rinse cycle is less than 2 ppm PCBs.
5. **Collect unpumpable solid surface samples:** Samples will be collected from the surface of the unpumpable solids. Five samples will be collected from each of the four tank quadrants using threaded PVC piping angled to collect the sample. The sampler will be "pushed" by mechanical means if necessary to collect a sample from 6 to 8 inches. Samples will be collected randomly within the quadrant. Each sample will be collected using dedicated piping and sampler. The samples will be analyzed for PCBs in accordance with 40 CFR 761.272. If the surface samples detect PCBs above 1 ppm, then another rinse removing 6 to 8 inches of material in the area above the cleanup standard using new rinse material will be completed, and sludge samples will be collected as described above. If the rinsing process can not remove 6 to 8 inches of

sludge, then other methods to remove the sludge will be employed. If solids testing detects PCBs above 1 ppm, then the process of rinsing and sampling (or material removal by other means) will be repeated until all samples are 1 ppm or below.

Rinse Material Disposal

WSP proposes to transport and dispose of the rinse material at Systech, if the rinse material PCB concentration is below 50 ppm. As you are aware, the EPA has approved, with a TSCA Coordinated Approval dated April 25, 2008, the disposal of "contaminated oil" from ESI at Systech. The approval letter is enclosed as Enclosure A. Under item #10 in the terms and conditions, the approval expires "when 1.5 million gallons of oil currently stored at ESI and the additional waste oil for decontamination have been burned". WSP believes that the TSCA Coordinated Approval has not expired since rinse material to be used in the triple rinsing of Tank 51 is "additional waste oil for decontamination".

If the rinse material PCB concentration is above 50 ppm PCBs, the rinse material will be shipped and disposed of at either Veolia or Clean Harbors.

Summary

WSP believes that the above approach meets the intent of the TSCA regulations, while protecting worker safety and somewhat minimizing the expense. The approach also will allow Tank 51 to be placed back on-line considerably faster than if a generic approach is taken, which will be logistically very difficult to implement.

If you have any questions, please contact John Simon at 703-709-6500 or Dave McLay at 303-850-9200. We look forward to working with you and your colleagues to develop a practical solution to managing the final portions of this project.

Sincerely yours,



John A. Simon
Executive Vice President



David S. McLay, P.E.
Technical Manager

JAS:dsm

Enclosure

cc/encl: Mr. Bradley Grahams, United States Environmental Protection Agency
Mr. George Ritchotte, Indiana Department of Environmental Management
Michael T. Scanlon, Esquire, Barnes & Thornburg LLP
Christopher Ferragamo, Esquire, Jackson & Campbell, P.C.
Mr. Al Nesheiwat, Chartis, Inc.
Mr. Glenn Serrano, Chartis, Inc.

Tables

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Table 1
WSP PCB And Percent Water Sample Results Summary
ESI - Indianapolis, Indiana

All Results are for Arochlor 1260 in ppm

Sample ID	Description	Date Collected	Matrix	Percent Water (1)	Analytical Laboratory	
					TestAmerica	TestAmerica
Tank 51 top	Oil from top of tank	3/12/2008	Oil	0.18	4.9 J	8.1
Tank 51 mid	Oil from middle of tank	3/12/2008	Oil	3.6	<20	6.1
Tank 51 Bot	Sludge from bottom of tank	3/12/2008	Solids	1.5	<20	1.6 J
East Million Top	Oil from top of tank	3/12/2008	Oil	0.12	<20	<2.0
East Million Top of Sludge	Sludge from 1'-2' below top of oil	3/12/2008	Solids	1.8	<20	<2.0
Tank 43	Solids from tank bottom	3/12/2008	Solids	0.50	<20	<2.0
Tank 44	Solids from tank bottom	3/12/2008	Solids	0.77	<20	<2.0
Tank 536A Top	Oil/Water from top of tank	3/12/2008	Oil/Water	0.62	<20	<2.0
Tank 536A Mid	Sludge from tank bottom	3/12/2008	Solids	96	<20	<5.0
Tank 529A Mid	Oil from mid tank	3/12/2008	Oil	1.4	6.3 J	8.4
Tank 529A Sludge	Sludge from tank bottom	3/12/2008	Solids	2.3	2.8 J	6.7

Notes:

1. Karl Fisher Titration for Percent Water - ASTM D 4928
2. Elevated detection limits from dilution due to oil viscosity. Sent samples to laboratory that specializes in oil testing. Less than (<) value indicates that PCBs were not detected at the reporting limit shown. J - estimated value. Result is less than the reporting limit.

Figures

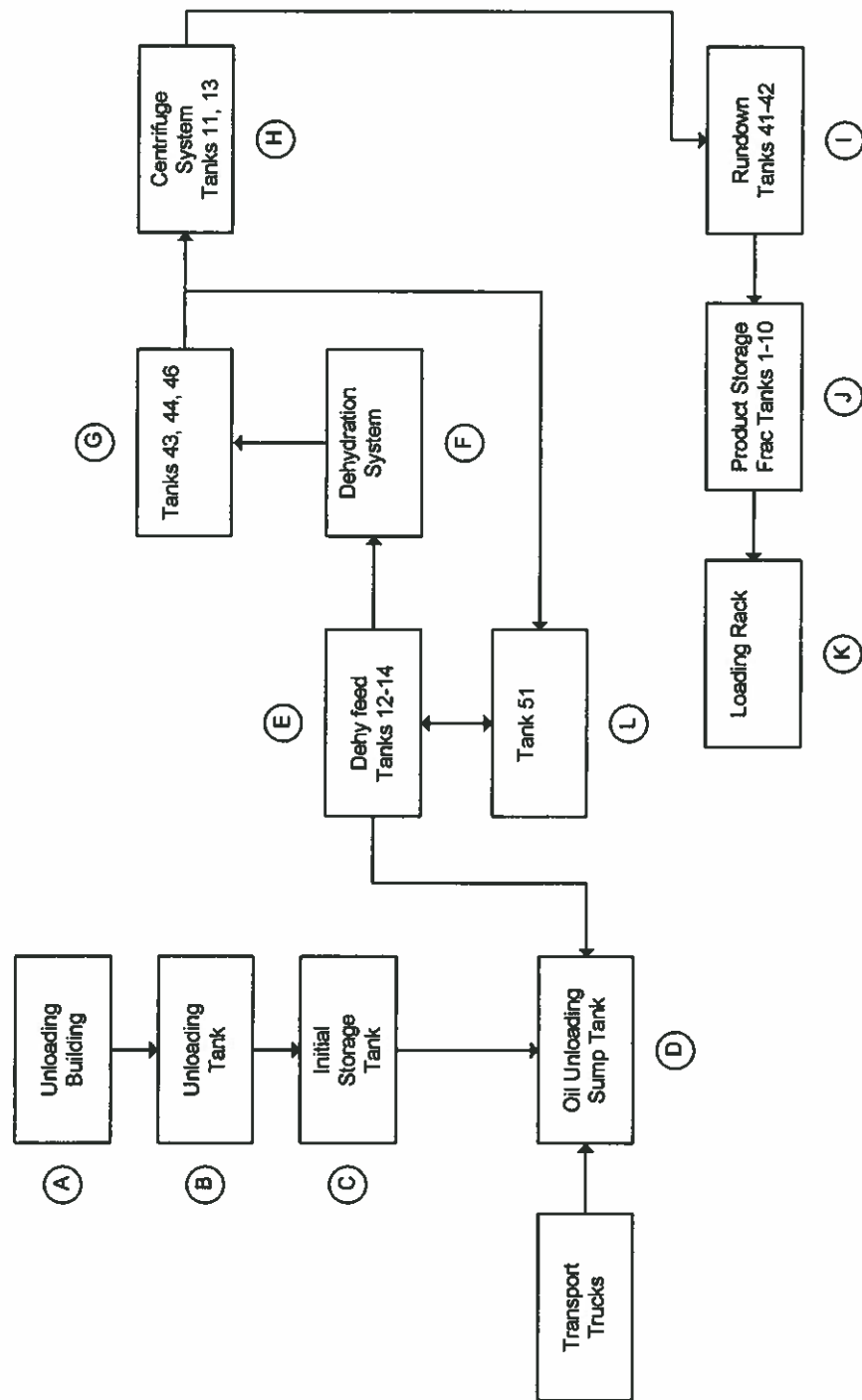


Figure 1
Process Schematic
PCB Contamination Flow Analysis
ESI Environmental, Inc.
Indianapolis, Indiana

WSP ENVIRONMENT & ENERGY
4600 SOUTH ULLSTER STREET SUITE 930
DENVER, COLORADO 80237
(303) 850-9200



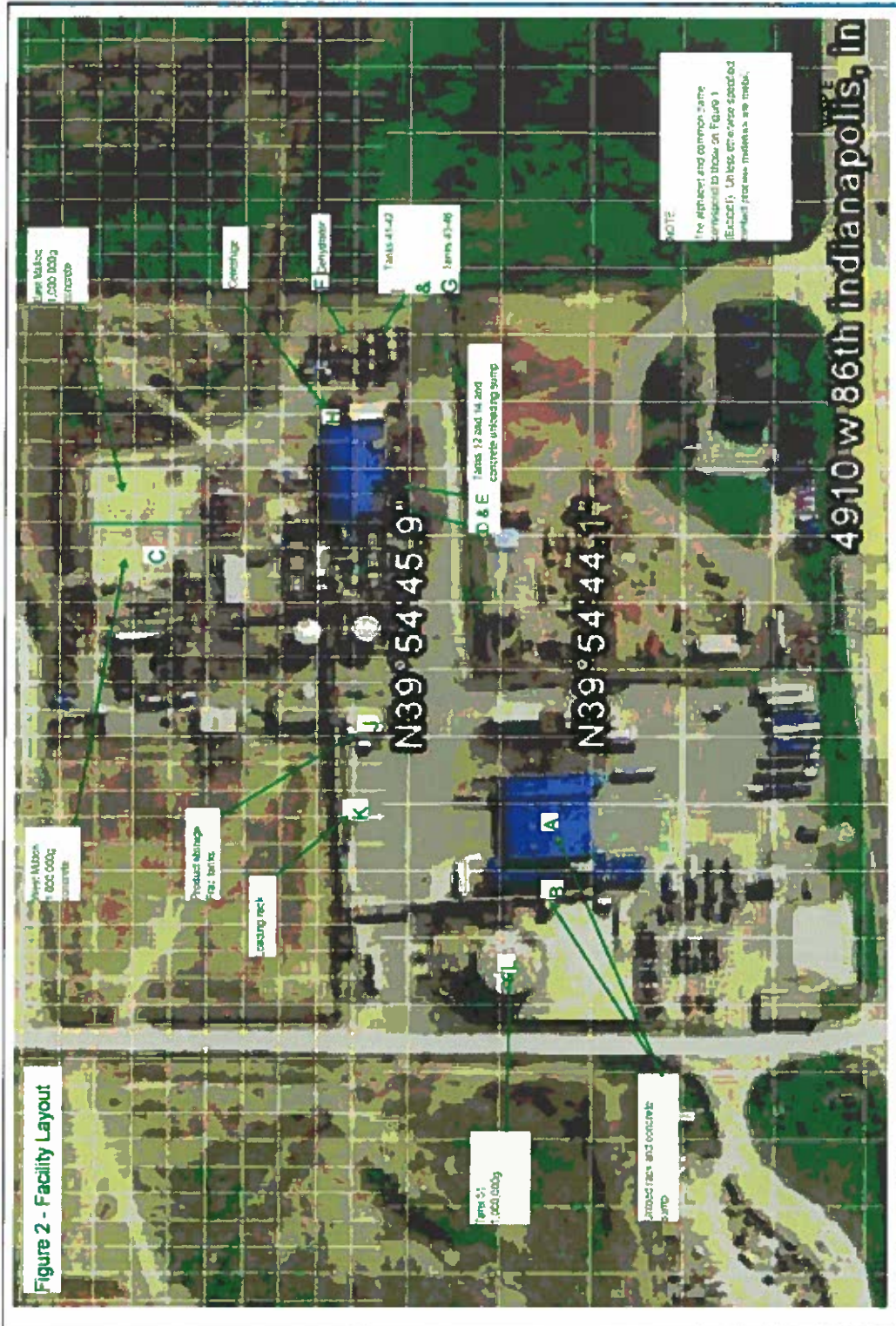


Figure 2
Facility Layout
 PCB Contamination Flow Analysis
 ESI Environmental, Inc.
 Indianapolis, Indiana

WSP ENVIRONMENT & ENERGY
 4600 SOUTH ULLSTER STREET SUITE 930
 DENVER, COLORADO 80237
 (303) 850-9200



Enclosure A
Systech/LaFarge TSCA Coordinated Approval Letter



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

APR 25 2008

REPLY TO THE ATTENTION OF:

L-8J

Certified Mail Receipt No.: 7001 0320 0005 8931 8380

Thomas Spannagl, President
Systech Environmental Corporation
11397 County Road 176
Paulding, Ohio 45879

Certified Mail Receipt No.: 7001 0320 0006 1456 1804

Heinz Knopf, Plant Manager
Lafarge North America
11435 County Road 176
Paulding, Ohio 45879

Re: TSCA PCB Coordinated Approval
Systech Environmental Corporation (OHD 005 048 947)
Lafarge North America (OHD 987 048 733)

Dear Messrs. Spannagl and Knopf:

The U.S. Environmental Protection Agency, Region 5, hereby grants a Toxic Substances Control Act (TSCA) coordinated approval (Approval) to Systech Environmental Corporation (Systech) and Lafarge North America (Lafarge) to store and burn 1.3 million gallons of oil containing less than 50 ppm PCBs (contaminated oil) as blended fuel. The contaminated oil will be stored at the Systech facility and burned as fuel in the cement kilns at the Lafarge facility, both of which are located in Paulding, Ohio.

The contaminated oil is currently stored at ESI Environmental, Inc. (ESI) located at 4910 West 86th Street, in Indianapolis, Indiana. The contaminated oil is considered regulated for disposal as PCB waste since some of the oil may have come in contact with a shipment received by ESI found to contain PCBs at a concentration greater than 50 ppm.

This Approval includes the terms and conditions in this letter, the conditions described in Systech's Resource Conservation and Recovery Act (RCRA) Part B operating permit for storing and blending hazardous waste, and the conditions under Lafarge's Clean Air Act (CAA) Title V permit for burning hazardous waste in the cement kilns, both of which were issued by the Ohio Environmental Protection Agency (OEPA).

In granting this Approval, we considered the following information:

1. The federal PCB regulations, set forth at 40 C.F.R. § 761.20(e), which allow waste oil with less than 50 ppm PCBs to be burned as a fuel in industrial furnaces and boilers.
2. Systech's and Lafarge's request for a TSCA coordinated approval to store, blend and burn the contaminated oil currently stored at ESI
3. Systech's notification of a PCB activity as a PCB storer dated October 17, 2007.
4. Lafarge's notification of a PCB activity as a disposer dated October 29, 2007.
5. Systech's RCRA Part B operating permit issued by the OEPA on August 8, 2003 and expiring on August 8, 2013.
6. Lafarge's final CAA Title V Chapter 3745-77 permit issued by the OEPA on June 18, 2003 and expiring on July 9, 2008.
7. Lafarge's demonstration that the hydrocarbon emissions do not exceed the hydrocarbon emission standard established during the August 1998 trial burn of cement kiln #1. An emission re-certification of compliance test was completed for kiln #2 in 1995.
8. Systech is a subsidiary of Lafarge, they are located immediately next to each other, and Systech routinely stores and directly feeds fuel oil for, and to, Lafarge.
9. The federal PCB regulations at 40 C.F.R. § 761.20(c)(2)(iii) which allow processing, diluting or otherwise blending of waste prior to being introduced into a disposal unit in order to meet PCB concentration requirements if it is done in accordance with a TSCA PCB disposal approval.

This Approval is effective immediately and is granted with the following terms and conditions:

1. Systech must follow the procedures described in the waste analysis plan and the terms and conditions of its existing RCRA Part B operating permit issued by the OEPA. Any material that has a PCB concentration of equal to or greater than 50 ppm must be rejected and returned to ESI.
2. Systech must store the contaminated oil from ESI in the following tanks:
 - a. OL-4,
 - b. OL-7, and/or
 - c. OL-8,as designated in its application for a TSCA approval dated September 25, 2007.
3. Systech must blend the contaminated oil from ESI pursuant to and as described in Lafarge's CAA Title V permit Condition II.2.: Operational restriction to meet the

specifications of the blended waste-derived fuel to be burned in Lafarge's kilns #1 and #2.

4. Systech must sample and analyze for PCBs any blended fuel fed to Lafarge's kilns during start up to assure compliance with Condition 5 of this Approval.
5. Lafarge may feed the contaminated oil during start up of the kilns as long as the blended fuel contains less than 2 ppm PCBs.
6. Lafarge may burn the blended contaminated oil in kilns #1 and #2 following the procedure and operational restriction specified in its CAA Title V permit.
7. Lafarge must maintain all records specified in its CAA Title V permit as well as those records required under 40 C.F.R. § 761.180(b). In addition, Lafarge and Systech must maintain the analytical results of the sampling required by Condition 4 of this Approval for three years.
8. Systech must decontaminate its tanks and piping system by circulating 15,000 gallons (ten percent of its largest tank volume) of blended fuel containing less than 2 ppm PCBs. The blended fuel must then be burned in kilns #1 and #2.
9. Lafarge must notify the Chief of the Toxics Section, at the above letterhead address, of the progress in burning the contaminated oil each month this Approval is in effect.
10. This Approval expires when the 1.5 million gallons of oil currently stored in ESI and the additional waste oil used for decontamination have been burned.

This Approval is granted in accordance with the federal PCB regulations at 40 C.F.R. § 761.77. Pursuant to 40 C.F.R. § 761.77, a TSCA coordinated approval may be issued to dispose PCB waste if an owner or operator of a facility has a waste management permit exercising control over the PCB wastes which was issued by a state program approved by the EPA and is no less stringent than the federal PCB regulations. For the purpose of this Approval and in accordance with 40 C.F.R. § 761.77(b)(3), the requirement to comply with the PCB incinerator standards at 40 C.F.R. § 761.70 is being waived, and instead, the terms and conditions in this letter are being applied. The terms and conditions in this letter are based on the requirements for burners of used oil for energy recovery at 40 C.F.R. § 761.20(e).

Lafarge and Systech are responsible for assuring that any person conducting storage or disposal activities under this Approval takes necessary measures to protect against the direct release of PCBs to the environment. Additionally, Lafarge and Systech are responsible for assuring that persons participating in the storage and disposal activities under this Approval wear protective clothing, or use equipment to protect against dermal or inhalation of PCBs, or materials containing PCBs.

This Approval is effective as of the date of this letter. Any departure from the conditions of this Approval must receive prior written authorization from EPA. This Approval may be suspended or revoked at any time if EPA has reason to believe that the continued burning of the oil presents an unreasonable risk of injury to human health and the environment. This Approval does not relieve Lafarge or Systech from complying with all other applicable federal, state and local regulatory requirements and does not preclude EPA from initiating any enforcement action, including an action seeking civil penalties, for any violation.

If you have any questions, please contact Tony Martig, of my staff, at (312) 353-2291.

Sincerely,



Margaret M. Guerriero, Director
Land and Chemicals Division

cc: J. Mensinger, Systech
B. Fogle, Lafarge
A. Heller, OEPA
M. Smidi, OEPA
G. Ritchotte, Indiana Department of Environmental Management
T. Gawlik, ESI